EP 867752 1327.005us1

5/9/1

DIALOG(R) File 351: Derwent WPI (c) 2002 Thomson Derwent. All rts. reserv. **Image available** WPI Acc No: 1997-515736/199748 XRAM Acc No: C97-164787 XRPX Acc No: N97-429008

Electrochemical, especially electrochromic, device - has electrolyte layer or multilayer of reversible ion insertion material with constant overall oxidation state

Patent Assignee: SAINT-GOBAIN VITRAGE (COMP); SAINT-GOBAIN VITRAGE INT

(COMP)

Inventor: GIRON J; GIRON J C

Number of Countries: 011 Number of Patents: 007

Patent Family:

Patent No		Kind	Date	App	plicat No	Kind	Date	Week	
FR	2746934	A1	19971003	FR	963799	Α	19960327	199748	В
JP	10030181	Α	19980203	JΡ	9775978	Α	19970327	199815	
CA	2201036	A	19970927	CA	2201036	A	19970326	199816	
KR	97066698	Α	19971013	KR	9710858	Α	19970327	199842	
EP	867752	A1	19980930	ΕP	97400702	A	19970327	199843	
US	6277523	B1	20010821	US	97825100	A	19970327	200150	
US	20010031403	A1	20011018	US	97825100	Α	19970327	200166	
				US	2001814703	A	20010323		

Priority Applications (No Type Date): FR 963799 A 19960327

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

FR 2746934 A1 31 G02F-001/15 JP 10030181 A 52 C23C-014/48 CA 2201036 Α H01M-002/00 KR 97066698 A G02F-001/15 A1 F EP 867752 G02F-001/15

Designated States (Regional): BE DE FR GB IT NL SE

US 6277523 B1 H01M-002/16

US 20010031403 A1 H01M-006/18 Cont of application US 97825100

Abstract (Basic): FR 2746934 A

In an electrochemical device including one or more substrates (1,7), one or more electrically conductive layers (2,6), one or more electrochemically active layers (3,5) capable of reversible insertion of ions (especially cations such as H+, Li+, Na+ and Ag+) and an electrolyte (4), the electrolyte (4) is a layer or multilayer stack including one or more ion conductive layers (4b) capable of reversible ion insertion but with a constant overall oxidation state.

Also claimed are: (i) the production of the above device, in which all or some of the layers are vacuum deposited by cathodic sputtering and/or vapour deposition and/or are deposited by sol-gel or pyrolytic techniques; (ii) electrochromic glazing, an energy storage element (especially a battery) and a gas sensor, including the above device; (iii) the use of the above electrochromic glazing as glazing for buildings, automobiles, mass transport or industrial vehicles, railway stock and aircraft, rearview mirrors, mirrors, optical elements such as photographic equipment objectives and front panels or elements for positioning in front of display screens of e.g. computers or televisions; and (iv) the use of the above energy storage element in electronic and/or information processing equipment and in equipment requiring an appropriate energy storage device.

USE - Used especially as an electrochromic device in which the light and/or energy transmission or light reflection can be modulated by an electric current, but also as an energy storage device (e.g. battery) or a gas sensor.

ADVANTAGE - Use of an ion insertion material not only for the electrochemically active layers but also for the electrolyte increases the durability or life of the device.

Dwg.1/5

Title Terms: ELECTROCHEMICAL; ELECTROCHROMIC; DEVICE; ELECTROLYTIC; LAYER; MULTILAYER; REVERSE; ION; INSERT; MATERIAL; CONSTANT; OVERALL; OXIDATION; STATE

Derwent Class: L03; P73; P81; S03; U11; U14; V07; X16; X22; X25 International Patent Class (Main): C23C-014/48; G02F-001/15; H01M-002/00; H01M-002/16; H01M-006/18

International Patent Class (Additional): B01D-053/32; B32B-007/02;
G01N-027/26; G01N-027/407; G02F-001/153; H01M-010/00; H01M-010/36;
H01M-010/40

File Segment: CPI; EPI; EngPI